

predefined to be a hotkey for invoking a pulldown menu) by a user and the user can then select the weight (thickness) of the line being drawn.

In creating a clip-art picture (as a component of a gallery), the editor allows a user to insert various objects into the picture, including: a line, rectangle, circle, (a short) text message (preferably at most 10 characters) or (a previously existing) clip-art picture (which the user would then usually modify to suit a particular application). When inserting a clip-art picture, the user is presented with an interface enabling the user to scroll through clip-art stored in the user equipment (one gallery at a time, as explained above), and then select an individual clip-art. In the preferred embodiment, the selection of one or another object, such as e.g. a circle, amounts to selecting a drawing tool. Thus, for example, choosing to insert a circle amounts to selecting the circle tool, which allows a user to draw a circle or ellipse of whatever size and shape the user would like, depending on how the tool is manipulated. A drawing tool is selected by a user from a menu of drawing tools.

If a user receives a call while editing a clip-art picture, in the preferred embodiment, the user saves the clip-art picture and then answers the call. With such a procedure, the user is then able to receive and display a graphical message and not overwrite in volatile memory the clip-art picture being edited.

Message handler module

Referring now to Figs. 5 and 6, in a further aspect of the invention, a message handler (Fig. 1) is provided allowing each picture in a gallery of clip-art pictures to be inserted into a text message at a desired location, and the resulting so-called

picture chat message sent and received according to a protocol in which, for mobile phones adapted to the present invention, the clip-art pictures occur in the message display interspersed with text, and for mobile phones not adapted to the present invention but able to receive GMS messages, the clip-art pictures of the invention occur at the top of the message display, and tags, each indicating a particular one of the clip-art pictures, occur interspersed with text, as shown in Fig. 5 (a display on a mobile phone adapted to the invention) and in Fig. 6 (a display on a mobile phone not adapted to the invention).

Referring again to Fig. 1, to enable a user to construct such a picture chat message, as indicated above, the invention provides a graphic message handler 18 including a message composer providing a composer mode, which in the preferred embodiment, allows a user to compose a text message as e.g. a normal smart message service (SMS) message, and insert one or more of the clip-art pictures of a gallery into the text, thereby providing a text message with in-line graphics (individual clip-art pictures). The message handler also allows a user to view a picture chat message (a view mode) with the clip-art pictures interspersed in the text, as in Fig. 5. Finally, the message handler prepares a picture-chat message for transmission by replacing the clip-art pictures with tags so that whether the receiving mobile phone is adapted to the invention or not, the user of the receiving mobile phone will still be provided with both the text and the clip-art, along with an indication (provided by the tags) of where in the text the clip-art is intended (as in Fig. 6). A phone having a graphic message handler 18 according to the invention will automatically detect that the message is a picture-chat message and engage the view mode of the message handler; the message

will then display without tags, and with the clip-art pictures actually interspersed in the text (as in Fig. 5).

Note that the clip-art pictures in a gallery according to the invention could each be protected as intellectual property using for example Adobe eBook Digital Rights Management (DRM) services.

It is important to understand that a message with in-line graphics according to the invention does not convey (necessarily) an entire gallery of clip-art pictures. However, the clip-art pictures used as in-line graphics are stored and maintained as components of a gallery (of preferably up to eight clip-art pictures).

In order for a message handler to recognize that an incoming picture-chat message is such, the message handler can be implemented so as to format such a message as set out in application Ser. No. 09/864,855, entitled *System and Protocol for Extending Funtionalty of Wireless Communication Messaging*, filed May 23, 2001 (already incorporated by reference) and application Ser. No. 09/864,897, entitled *System for Personal Messaging*, filed May 23, 2001 (also already incorporated by reference). Alternatively, the message handler can append a tag in the picture-chat message indicating to a suitably adapted receiving mobile phone that the message being received is a picture-chat message.

According to the invention, a picture chat message can also be sent and handled as a short-message service (SMS) based picture message including text (sent as three separate SMS messages, as disclosed in U.S. application Ser. No. 09/864,855, entitled *System and Protocol for Extending Funtionalty of Wireless Communication Messaging*, referenced above); the